

SEC Modification Proposal, SECMP0106, DCC CR1335

CHISM¹ Update for Unknown WAN² Variant Preliminary Impact Assessment (PIA)

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¹ Communications Hub Support Materials (CHISM)

² Wide Area Network (WAN)

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1 Document History

1.1 Revision History

Revision Date	Revision	Summary of Changes
09/06/2020	0.1	Initial version
10/06/2020	0.2	Internal DCC reviews complete

1.2 Associated Documents

This document is associated with the following documents:

Ref	Title and Originator's Reference	Source	Issue Date
1	MP106 Business-Requirements v0.1	SECAS	03/04/2020
2	MP106 Preliminary Assessment Request	SECAS	03/04/2020

References are shown in this format, [1].

1.3 Document Information

The Proposer for this Modification is Chun Chen of SmartDCC. The original proposal was submitted on the 30th December 2019.

The Preliminary Impact Assessment was requested of DCC on 6th April 2020.

2 Context and Requirements

In this section, the context of the Modification and the requirements are stated. These have been provided by SECAS and the Proposer.

2.1 Context

For a DCC User to obtain a Smart Metering Wide Area Network (SM WAN) Coverage, they must send Service Request 12.1 'Request WAN Matrix'. The Data Service Provider (DSP) will then provide an Availability Date and WAN Variant in response. WAN Variants are listed in Table 3 of SEC Appendix I 'Communications Hub Installation and Maintenance Support Materials (CHISM)' Annex E. In the exception case where the Availability Date for SM WAN Coverage is known, but the WAN Variant is not, with the implementation of SECMP0081 'Alignment of DUIS and CHISM to reflect current DCC Processing', the DSP will return " " (Space) for the South and Central regions.

2.2 Issue

When a DCC User sends Service Request 12.1 'Request WAN Matrix' to receive SM WAN Coverage, in most cases they will receive an Availability Date and WAN Variant. However, in an exception case, the Communications Service Provider (CSP) for the South and Central regions may respond to a SM WAN Coverage request (CSPM-S1 or CSPM-S2) with an Availability Date for coverage but without being able to confirm the WAN Variant that will need to be used. On receipt of this data, the DSP returns the Availability Date and the value of the unconfirmed WAN Variant in the response to Service Request 12.1 'Request WAN Matrix'.

The WAN variant returned by the DSP is defined by Table 3 in Smart Energy Code (SEC) Appendix I 'Communications Hub Installation and Maintenance Support Materials' (CHISM) Annex E as below:

WAN Variant (DCC 1.3)	WAN Variant (DCC 2.0)	CSP Region
Standard 420	420	CSP North
Variant 450	450	CSP North
Cellular	Cellular	CSP South and Central
Cellular+Mesh	Cellular+Mesh	CSP South and Central
No Coverage Intended	No Coverage Intended	N/A
" " Space	" " Space	CSP South and Central

With the pending implementation of SECMP0081 'Alignment of DUIS and CHISM to reflect current DCC Processing', a " " Space will be used by the CSP for the South and Central regions to indicate the unconfirmed WAN Variant.

2.3 Business Requirements

This section contains the considerations and assumptions for each business requirement.

1	To amend the DSP response in the case of an unconfirmed WAN Variant in the CSP South and Central regions from “ ” Space to “Unknown”
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Table 1: Business Requirements for SECMP0106, CR1335

During a User engagement design discussion, it was highlighted by a customer that the “ ” Space response would be confusing and they would prefer a more meaningful response. It has been suggested that the wording to use is “Unknown”.

This change will require an update to the SM WAN coverage database managed by the CSP South and Central regions. A CHISM documentation change to Table 3 in CHISM Annex E must be included.

3 Description of Solution

The only Service Provider directly impacted by this Modification is CSP South and Central. The solution changes will include:

- Modification to the Telefónica Coverage Deployment Model output and SMWAN Coverage Checker Database to support the inclusion of “Unknown” instead of “ ” (space) as one of the recommended Communication Hub variant type against a post code when a WAN variant is not confirmed.
- The CSP Network Coverage Extract data extract files provided by the CSP per region i.e. one for CSP Central and one for CSP South via the existing CSP/DSP interface, will also include ‘Unknown’ as a Communication Hub variant when the WAN variant is not yet confirmed against a post code.

Additionally there will be reviews of the following uplifted documentation during the development of the Full Impact Assessment (FIA):

- SEC document Appendix I ‘CH-Installation-and-Maintenance-Support-Materials’ which includes an update to Annex E.3. Communications Hub WAN Variant Values. This change will take place.
- Modification to the CSP South and Central Reporting systems to include changes to the business rules to be able to process ‘Unknown’ when the Recommended Communication Hub variant type is ‘Unknown’.

There will be a change to CSP South and Central Test stub (DSP Emulator) to validate in PIT testing the response data to a request received over the CSP Management Gateway for a postcode or at a specific premise within a postcode or for a postcode district level.

The SD4.4.4 CSP Management Interface Specification is a design document maintained by the DSP. The attribute "commsHubVariant" in table 5 in this specification has a data type of String(30) which means the new value of 'Unknown' can be accepted without change.

Name	Description	Type	Mandatory
commsHubVariant	The value provided will be the relevant WAN variant, to indicate the WAN technology to be used for this postcode. Possible values “Cellular”, or “Cellular+Mesh” or “Special Installation Mesh”. If no coverage is planned then a value of “ ” (single space) will be returned.	String(30)	Yes

As part of the design changes, the DSP will add a new example value of 'Unknown' to the above table in SD 4.4.4 document.

4 Implementation Timescales and Approach

The scope under this PIA includes design, development (build), system testing, and performance testing within the PIT environments.

4.1 Implementation Approach

Whenever this Modification is implemented, based on the stated requirements above, the elapsed time for Design, Build and PIT will be approximately 3 months following the provision of full commercial cover.

The release lifecycle duration will be confirmed as part of the FIA. This work could be part of a maintenance or major SEC release.

The documentation change could be scheduled around the release date.

4.2 Release Costs and Charges

The table below details the cost of delivering the changes and Services required to implement this Modification Proposal.

The Rough Order of Magnitude cost (ROM) shown below describes indicative costs to implement the functional requirements as assumed now. The price is not an offer open to acceptance. It should be noted that the change has not been subject to the same level of analysis that would be performed as part of a Full Impact Assessment and as such there may be elements missing from the solution or the solution may be subject to a material change during discussions with the DCC. As a result the final offer price may result in a variation.

The table below details the cost of delivering the changes and Services required to implement this Modification. For a PIA, only the Design, Build and PIT indicative costs are supplied.

£	Design, Build and PIT	Total
Phase ROM	150,000	£150,000

Based on the existing requirements, the fixed price cost for a Full Impact Assessment is £19,480 and would be expected to be completed in 30 days.

4.3 Contract Schedules

Schedules will require modification to reflect the changes necessitated under this Modification. The contract schedules should be updated as part of a CAN which combines schedules updates from other relevant CRs.

At a minimum, the following contract schedules will require modification:

- Schedule 3 DCC Responsibilities
- Schedule 6.1 – to include delivery Milestones in relation to this CR
- Schedule 6.2 – Testing and Acceptance

- Schedule 7.1 – to reflect the new Charges for this CR

Additional Schedules may require modification due to the outcome of commercial discussions, which will follow submission of this Preliminary Assessment.

Schedules will require modification for both the Central and South CSP regions.

5 Risks, Assumptions, Issues, and Dependencies

The tables below provides a summary of the Risks, Assumptions, Issues, and Dependencies (RAID) observed during the production of the PIA.

DCC requests that the Working Group considers this section and considers any material matters that have been identified. Changes may impact the proposed solution, implementation costs and/or implementation timescales.

5.1 Risks

None at this time.

5.2 Assumptions

These assumptions have been used in the creation of this PIA. Any changes to the assumptions may require DCC to undertake further assessment.

Ref	Description	Status/Mitigation
MP106-AT01	Assume that this Modification will be released as a standalone DCC-L release.	Rejected, as is yet to be decided, and will not impact this PIA
MP106-AT03	Assume that the Communication Hub WAN variant values in Annex E.3 of SEC Appendix I 'CH Installation and Maintenance Support Materials' will be updated first to include " " (space) as a WAN variant for CSP Central and South as part of planned SEC Modification proposal SECMP0081 which is currently scheduled to be implemented as part of Nov'20 SEC Release.	Accepted
MP106-AT04	Assume there will be no changes to the PIT test approach as part of this Modification.	Accepted

5.3 Issues

None at this time.

5.4 Dependencies

Reference	Dependency	Required to	Status
MP106-DT01	Dependent on the DCC making available the uplifted SEC Appendix I 'CH-Installation-and-Maintenance-Support-Materials' specification prior to the Impact Assessment stage.	Review and confirm if the changes to its SMWAN Network Coverage data is compliant with the SEC documentation.	Rejected, updated Annex will be provided during FIA
MP106-DT02	Dependent on the updated DSP SD4.4.4 specification which includes the changes to the response data to its CSP hosted API.	CSP South and Central will not be able to make the relevant changes to the Network Coverage file extract data.	Rejected. SD4.4.4 already allows string values, no change required for this Modification

Appendix A: Glossary

The table below provides definitions of the terms used in this document.

Acronym	Definition
CH, Comms Hub	Communications Hub
CHISM	Communications Hub Support Materials
CR	(DCC) Change Request
CSP	Communication Service Provider
DCC	Data Communications Company
DSP	Data Service Provider
FIA	Full Impact Assessment
PIA	Preliminary Impact Assessment
PIT	Pre-Integration Testing
ROM	Rough Order of Magnitude (cost)
SEC	Smart Energy Code
SECAS	Smart Energy Code Administrator and Secretariat
SP	Service Provider